

Serial No. 10/613,605
Attorney Docket No. 24170759.16

AMENDMENTS TO THE SPECIFICATION

(1) Please amend paragraph [0054] as follows:

[0054] FIGS. 15, 15A and 15B illustrate variations of an eighth embodiment of a fastener 200A, 200B according to the invention. One difference between fasteners 200A, 200B and those shown and described above is that the fasteners 200A, 200B are substantially in the shape of a ball. By "ball" is meant those classes of shapes that are convex and generally round in shape and may be made up of one or more curved surfaces and/or include surfaces which are planar. Thus, as defined herein, "ball" includes but is not limited to the following shapes: sphere (FIG. 15, 15A and 15B), prolate spheroid (FIG. 16), oblate spheroid (FIG. 17), regular convex polyhedra where the base polygon is at least a pentagon, i.e. a dodecahedron (FIG. 18C), icosahedron (FIG. 18A), and any other shapes, e.g. geodesic domes, that approximate a sphere (such as the shapes shown in FIGS. 18B, and 18D-18F), or approximate the shapes of prolate spheroid or oblate spheroid.

(2) Please amend paragraph [0055] as follows:

[0055] As shown in FIGS. 15, 15A and 15B, the fasteners 200A, 200B are a solid, or alternatively, hollow member having a ball shape. FIG 15A illustrates an isometric view of a spherical fastener 200A, while FIG. 15AB illustrates a cross section view of the fastener 200A in FIG. 15A taken along Line 15AB-15AB. FIG. 15B illustrates a cross section view of a fastener 200B similar to the fastener 200A in FIG 15A, but where ~~if the opening 216BA of the fastener~~ 200B has been altered to include a cylindrical opening 216B having a countersink. Both fasteners 200A, 200B respectively include a first portion 212A, 212B (i.e., a first engaging surface 212A, 212B) for engaging a picket, and a second portion 214A, 214B (i.e., a mating

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surface 214A, 214B) for engaging a second article, such as a rail to which the picket is to be attached. For both fasteners 200A, 200B, a top surface 218A, 218B and an opposite bottom surface 220A, 220B are substantially flat, to facilitate ease of placement and assembly onto a facing surface of an item, e.g. a rail. The fasteners 200A, 200B are desirably fabricated as a single piece of a uniform material for ease of fabrication. Exemplary materials include nylon, plastics, polyvinyl chloride, and other deformable materials including but not limited to synthetic rubber and polyurethane. The fasteners 200A, 200B preferably include a first set of ridges 211A, 211B, respectively, disposed on an exterior surface of the first portion 212A, 212B or first engaging surface 212A, 212B thereof, for use in frictionally engaging an interior surface of a cylindrical opening provided in a longitudinal end of a picket or baluster. The maximum dimensions of the ridges of the fasteners 200A, 200B are preferably selected to be slightly larger than the internal dimensions of the opening in the picket, e.g. by an amount on the order of hundredths of an inch along the diameter of the ridges, such that the ridges frictionally engage the interior surface of the opening in the picket and stay engaged despite stresses that the assembled rail and picket may encounter later. In such case, the fasteners 200A, 200B and/or the ridges 211A, 211B are fabricated of a material and thickness such that some deformation of the ridges and/or the underlying ball occurs upon inserting the fasteners 200A, 200B into the opening of the picket.

(3) Please amend paragraph [0056] as follows:

[0056] ~~The fastener 200 is~~ fasteners 200A, 200B are also provided with a second portion 214A, 214B having a second set of ridges 213A, 213B used to frictionally engage an interior surface of an opening in another member to which the picket is joined, for example, a rail of a

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railing. The ridges 213A, 213B of the second set are desirably slanted in the opposite direction from the ridges 211A, 211B of the first set such that the ridges 213A, 213B frictionally engage a first opening in one item, e.g. a rail, while ridges 211A, 211B frictionally engage an opening in another item, e.g. a picket.

(4) Please amend paragraph [0057] as follows:

[0057] A stop 222A, 222B may be provided on the exterior surface of the fasteners 200A, 200B ~~between~~ in either or both the first portion 212A, 212B and second portion portions 214A, 214B, for use in stopping the fastener 200A, 200B from being inserted too deeply into one or the other of the picket and the rail to which it is being joined. As illustrated, the stop 222A, 222B may simply be the ridges 211A, 211B, 213A, 213B of either or both the first and second portions 212A, 212B, 214A, 214B having the outermost diameters, i.e., the ridges 211A, 211B, 213A, 213B having the largest diameters when compared to others of the ridges. As may be clearly seen from FIGURES 15, 15A and 15B, in some embodiments, these outermost ridges 222A, 222B do not function strictly as a positive stop, but rather simply provide the maximum ridge diameter for either or both portions 212A, 212B, 214A, 214B of the fastener 200A, 200B to engage their respective items (e.g., a picket or a rail). While the fasteners 200A, 200B are desirably fabricated in one piece and of uniform material throughout, the first and second portions 212A, 212B, 214A, 214B, or other components of fasteners 200A, 200B may be constructed of different materials or different pieces of the same or similar materials and then assembled to make the fastener.

(5) Please amend paragraph [0058] as follows:

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[0058] The fasteners 200A, 200B are preferably provided with an aperture 216A, 216B on at least one end thereof, the aperture 216A, 216B preferably being sized and shaped to accommodate standard-sized tools such as those of rectangular cross-section (opening 216A in FIG. 200A), e.g. a rectangular nut driver or socket wrench, or those having other cross-sections, e.g. hexagonal drivers, also known as "Allen" wrenches, for example. In such case, the aperture 216A provides a way of applying torque to insert a lower portion 214A of the fastener 200A into an item such as a rail.

(6) Please amend paragraph [0059] as follows:

[0059] Alternatively, the aperture may be a countersink 216B, such as the ~~aperture~~ countersink 216B shown in FIG. ~~15B-200B~~, for retaining a screw or bolt of length sufficient to pass through the fastener 200B from the side of the aperture 216B to the opposite side, the screw or bolt then threadably engaging another item, e.g. the rail thereunder.

(7) Please amend paragraph [0060] as follows:

[0060] Alternatively, to facilitate turning of the fastener, at least one end of the fasteners 200A, 200B may be provided with a bolthead (such as that shown and described above relative to FIG. 12) in the place of aperture 216A, 216B, the bolthead being desirably formed integrally to a top surface 218A, 218B of the fasteners 200A, 200B. In such case, the bolthead provides a way of applying torque to insert a lower portion 214A, 214B of the fasteners 200A, 200B into an item such as a rail.

(8) Please amend paragraph [0061] as follows:

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[0061] In a preferred method of assembling a picket to a rail to form an element of a railing or balustrade, the fasteners 200A, 200B is placed, bottom side 220A, 220B down on a rail, leaving the top surface 218A, 218B exposed. The body of a screw or bolt is threadably inserted into or, alternatively, passed through the fasteners 200A, 200B to threadably engage the rail below, while the screwhead, bolthead, or tool-receiving aperture 216A (or countersink 216B) of the fasteners 200A, 200B remains accessible from a top surface 218A, 218B to allow torque to be applied to affix the fastener to the rail. Thereafter, a cooperating opening of the picket is then inserted over the fasteners 200A, 200B to affix the picket to the rail. The cooperating opening can have a variety of shapes, such as cylindrical, conical, rectangular, hexagonal or other regular polygon, as well as in the shape of a half-ball or section of a ball, as that term is defined herein.

(9) Please amend paragraph [0062] as follows:

[0062] To continue making a balustrade, the process is then repeated by affixing fasteners 200A, 200B at desired spacings, and affixing pickets thereto to make an assembly having a rail and a plurality of pickets affixed thereto. This represents a "lower" rail of the balustrade, for example. Then, fasteners 200A, 200B are affixed to a second rail at desired spacings. The balustrade is then completed by mating the pickets that are affixed to the lower rail to the fasteners 200A, 200B that are affixed to the second, upper rail.

(10) Please amend paragraph [0063] as follows:

[0063] While in many railings or balustrades the pickets or balusters are oriented at right angles, many occasions arise when pickets must be oriented at other than right angles, e.g.

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stairways, in which case at least one of the angles that the baluster makes relative to the rail is acute. The ball-shape of fasteners 200A, 200B makes them well-suited for this purpose because the angle that each ball-shaped fastener 200A, 220B makes relative to the opening in a picket can change while the fastener 200A, 200B still continues to frictionally engage the opening.

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